

Project Fact Sheet

Co-Production of Silica from Geothermal Brine

GOALS

- Develop additional revenue sources for geothermal power plants through the sale of the mineral by-products.
- Generation of additional energy for California.
- Reduction of maintenance and operating costs through a reduction in silica scaling.



PROJECT DESCRIPTION

The purpose of this project is to develop commercial technologies to efficiently extract silica from geothermal fluids. The extraction of silica will favorably impact the economics of geothermal power generation through the sale of the mineral by-product. Benefits may also be realized by the generation of additional energy and the reduction of operating and maintenance costs at power plants through a reduction in silica scaling. Silica removal reduces the need for costly new injection wells. This is because reinjected fluids from which

silica has not been removed tend to precipitate silica in the reinjection pipeline and subsurface rock formations, and eventually cause equipment and well plugging. Extracting the resources prior to reinjection has no negative environmental impact. It also allows spent geothermal fluids that are not re-injected to be considered as a potential source of irrigation or industrial water.



BENEFITS TO CALIFORNIA

- Developing additional revenue sources for geothermal power plants.
- Reduction in scaling will allow for utilization of lower temperature waste heat, and reduce maintenance and operations costs.
- Silica extraction will reduce down-time and costs associated with scale removal.
- Enhance competitiveness of geothermal energy in California.
- Increase efficiency and energy yield of geothermal power plants.

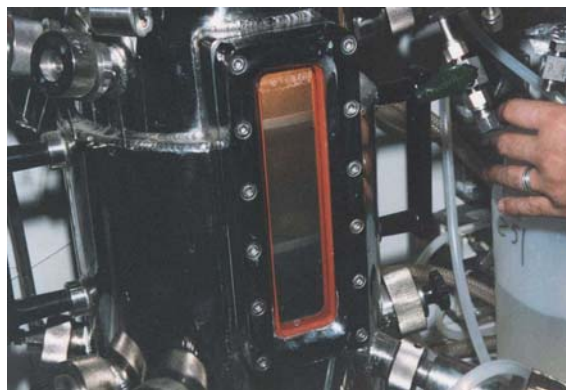
- Mineral extraction technology may reduce on-surface and underground mining and environmental damage.
- Additional employment can be created if extraction technology is successful.
- Collaboration between government and the private sector.

FUNDING AMOUNT

Commission	\$669,683
Match	\$167,420
Total	\$837,103

PROJECT STATUS

Ongoing



FOR MORE INFORMATION

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